

Query #1. Create a query that calculates the total amount earned by film category and the average amount earned per unit rental in each category to determine the highest and lowest earning categories. Note that the total amount earned may not correlate to the highest earned per rental

- In comparing the average earned per rental versus the total earned by category (Figures 1 and 2), no direct correlation appears to be found. Although one may think the highest average revenue per rental may equate to the highest earnings, this correlation is not apparent.
- Figure 3 underscores this lack of correlation. Although a slight positive trend is noted in calculating a linear trend between the total amount earned as a function of the average \$ per rental, the low R^2 value of this correlation shows a weak trend.

Fig 1. Average \$ earned per rental per category

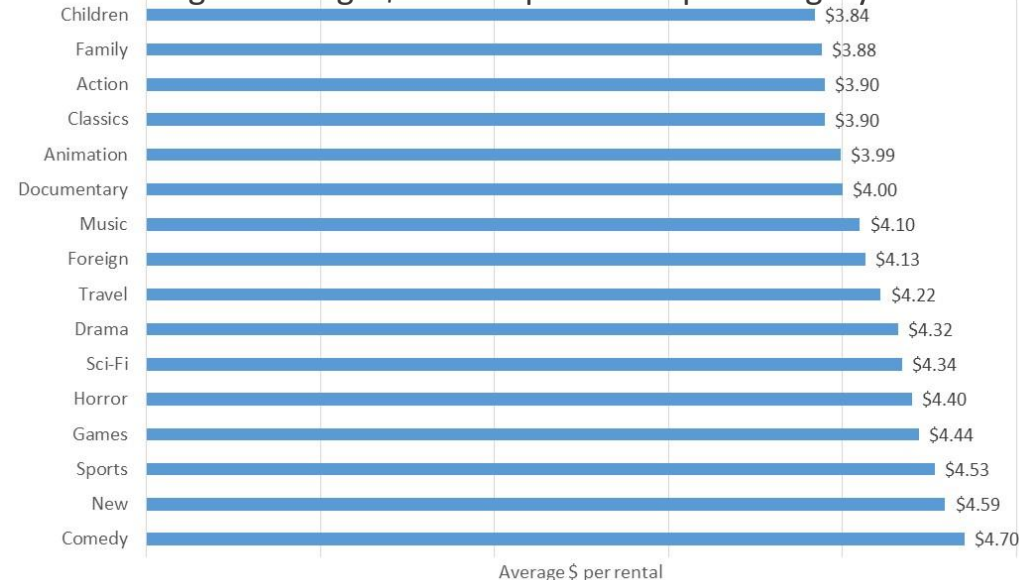
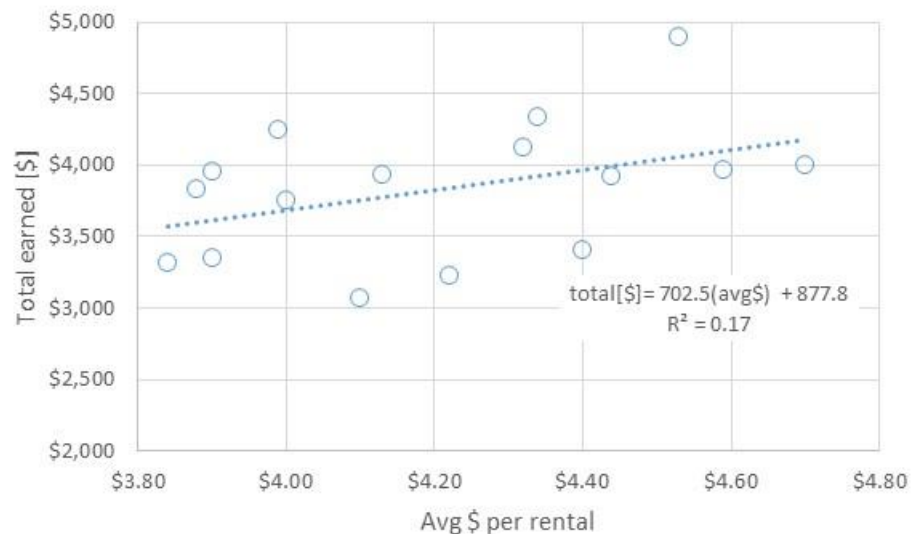


Fig 2. Total earned per category



Fig 3. Linear correlation between total and average sales per rental



Query #2. Create a query that determines the most top 10 most profitable actors in total sales and per rental

- In comparing Figures 1 and 2 it may be seen that the total top grossing actors do not correlate to the top grossing average \$ per rental.
- Other factors such as the film category (as shown in the first slide) or perhaps the duration of the rental have a higher impact on the average cost per rental.

Fig 1. Top 10 earners and avg. \$ per rental

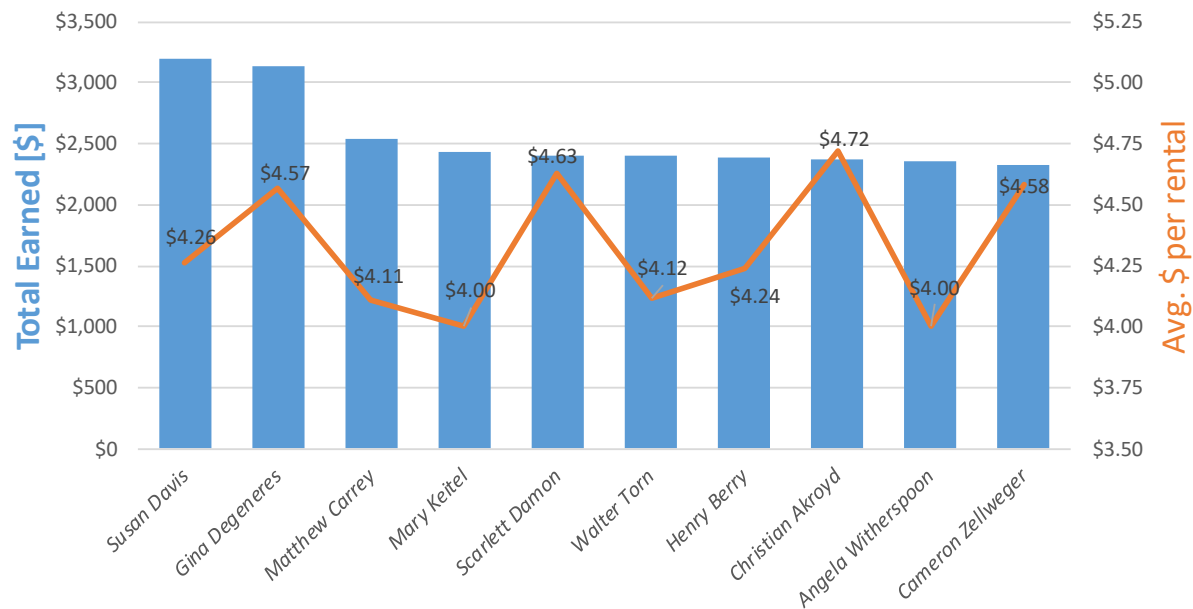
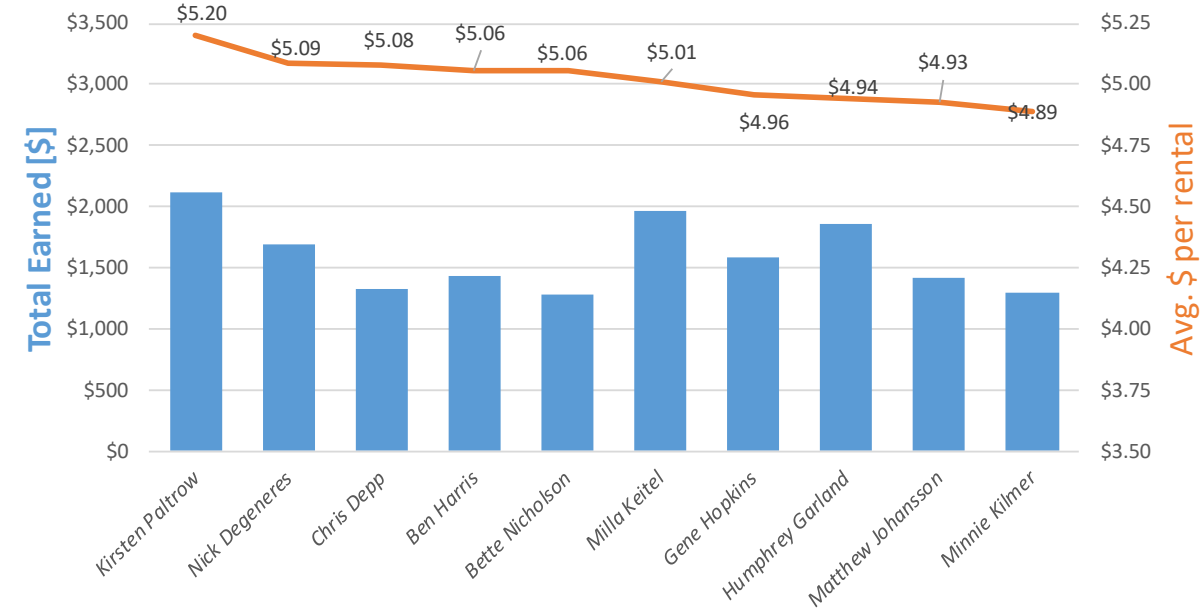
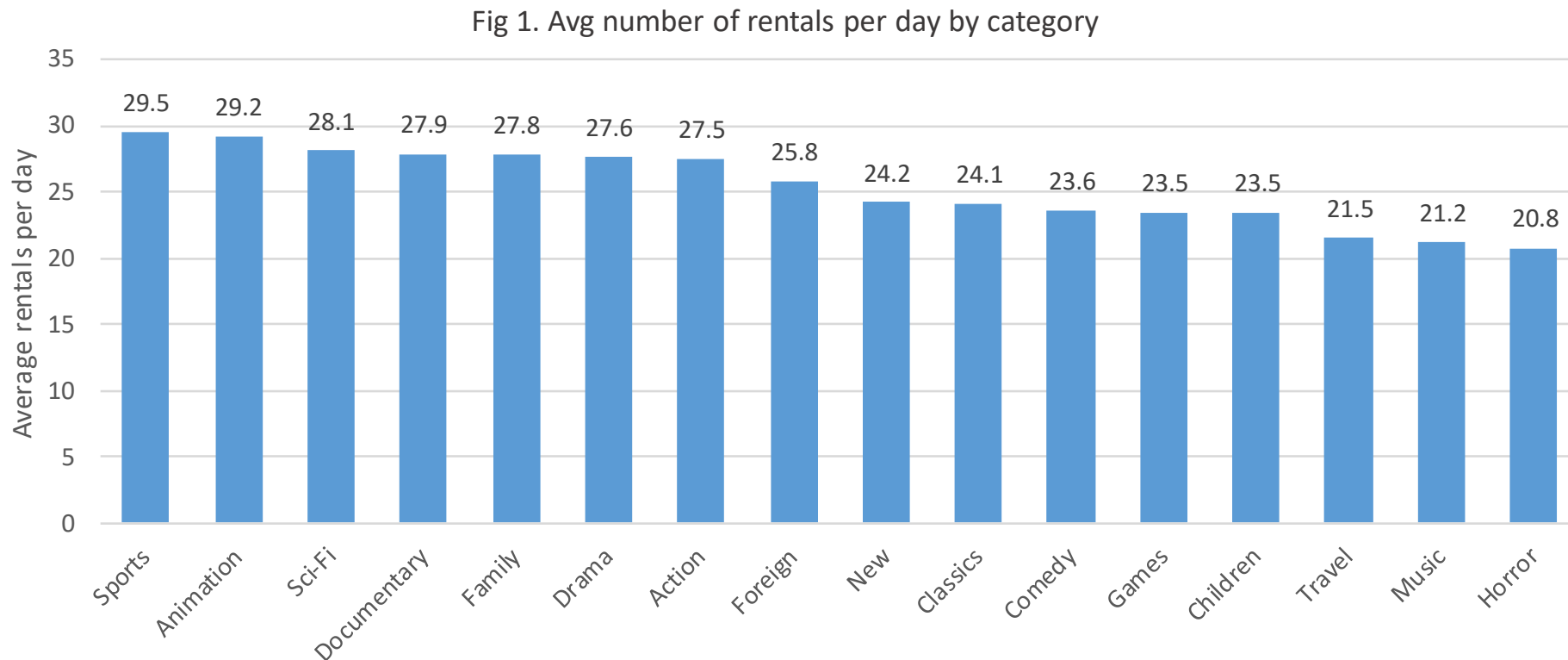


Fig 2. Top avg. \$ per rental and total earned



Query #3. Create a query that determines the average number of rentals per day per film category

- From this query it may be seen that Sports, Animation, and Sci-Fi are the top rentals per day. Note that this analysis has rounded out the number of rentals within one significant digit (although there are no partial rentals, this is a relic of averaging and is valid for comparison analysis)
- Comparing these results to slide one underscore why these three categories are high earners (due to the frequency of rentals). To put in perspective, the Sports category has 41% higher rental frequency than the Horror category.



Query #4. Create a query that determines the weekly running sales by film category to examine high and low peak sales times

- From this query it may be seen that there exists a peak distinct sales time around week 5 with a low around week 2.
- The general sales trend appears consistent throughout the different categories of films.

Fig 1. Total sales amount during different weeks

